City of West Lafayette
Stormwater Program

Stormwater Service Charge Policies and Procedures

CITY OF
WEST LAFAYETTE

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POLICY AND PROCEDURES DOCUMENT

The Policy and Procedures document establishes and conveys the general policies and procedures of implementation and operation of the City of West Lafayette's Ordinance No. 43-88-CM. This document discusses, directs and illustrates the program's responsibilities, processes and details for the determination, assessment and appeal of the current Stormwater Service Charge.

1. PROGRAM RESPONSIBILITY

The Common Council of the City of West Lafayette adopted Ordinance No. 43-88-CM which established the "City of West Lafayette Drainage Code", in order to govern the control of run-off of stormwater and to protect, conserve and promote the orderly development of the land in the City of West Lafayette and its water resources. The "City of West Lafayette Drainage Code" currently includes stormwater quantity and quality to meet the current NPDES permit requirements.

The primary source of revenue for the operation of all functions related to stormwater is the stormwater service charge applied to all developed property within the Stormwater District. Per Ordinance No. 34-12 the Stormwater Service Charge is the minimum necessary to pay for the repair, replacement, planning, improvement, operation, regulation and maintenance of the existing and future City of West Lafayette stormwater system and for compliance with the City of West Lafayette NPDES stormwater discharge permit.

Stormwater program activities are currently coordinated by the Engineering Department. Budgets and contracts are also approved by the City Board of Works as authorized by the West Lafayette City Council. Program billing activities are carried out using the City's Geographic Information System (GIS) (parcel database management, update and maintenance) and the City Utility Billing Office (service charge statement distribution and collections).

As approved, the Ordinance expires in the year 2033, unless extended by Common Council action.

2. STORMWATER DRAINAGE SYSTEM

The City's stormwater drainage system or NPDES permitted MS4, consists of inlets, catch basins, pipes, stormwater basins, swales, ditches and other watercourses within the public right-of-way that convey stormwater. Public streets and roadways are considered by the City, as part of the City's stormwater conveyance system. Private stormwater facilities or structures are considered the responsibility of the landowner.

3. STORMWATER SERVICE CHARGE

Per the Ordinance No. 34-12 the Stormwater Service Charge is imposed on each and every lot and parcel of land within the City of West Lafayette that directly or indirectly contributes to the City's stormwater drainage system. The property owner of public record is ultimately responsible for and is assed the Stormwater Service Charge and all assess penalties, recording fees, legal fees, interest, court costs and other expenses, as applicable.

The Engineering Department is responsible for creating policies and procedures to make determinations regarding specific parcels and properties for purposes of calculating the Stormwater Service Charge for such properties.

A. DETERMINATION OF STORMWATER SERVICE CHARGE

Impervious Surface Area

Impervious Surface Area is defined as a surface that prevents the infiltration of stormwater into the soil. Impervious Surface Area allows stormwater to accumulate and run off as concentrated discharge. The City considers all developed property to contain impervious surface area. Impervious surface areas include driveways, building rooftops, parking lots, patios, sidewalks, private roadways, pavement, rooftops, compacted gravels and other structures. The City measures impervious areas on non-residential property but has adopted an average area of impervious area for residential properties. Refer to **Page 3** for examples of impervious and pervious surface areas.

Impervious Surfaces

What the City Measures on Non-residential Parcels

Roadways, Driveways, Parking Spaces, Aprons, Pathways

Gravel Driveways, Parking Areas, Aprons Pathways

Roofing, Patios, Sidewalks

Pervious Surfaces

What the City Does Not Measure on Non Residential Parcels

Grass, Trees, Vegetated Areas

Wood Decking

Hardscape, Landscape Features, Steeping Stones, Rock Gardens

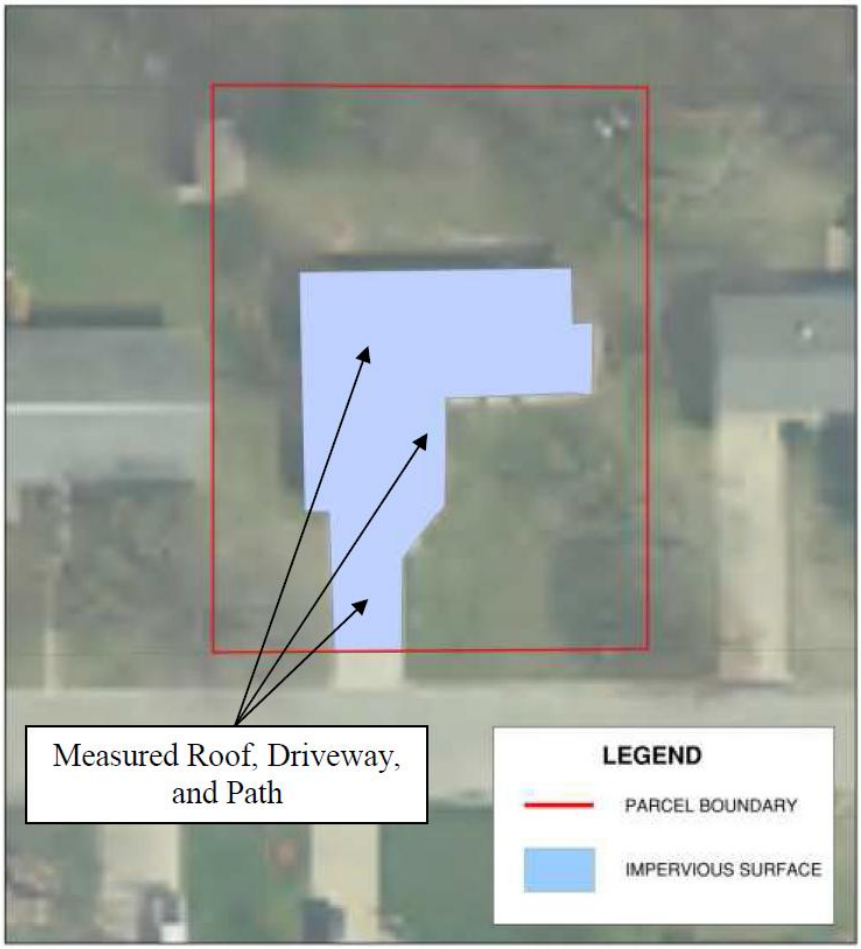
Equivalent Residential Unit (ERU)

The City of West Lafayette established an Equivalent Residential Unit (ERU) as the basis of determining the Stormwater Service Charge. The ERU serves as the base billing unit for the City's service charge and is an average of impervious surface area located on a residential property for the City of West Lafayette. One ERU is equal to 3,200 square feet of impervious surface. Residential properties are considered to be one ERU. Non – residential properties can be assigned multiple ERU's. All properties having impervious area are assigned at least one (1) ERU.

Impervious Surface Area Measurement and ERU Calculation

As stated above, a residential property is assigned one ERU or base billing unit and is the average impervious surface area of a residential property or parcel. An illustration of impervious surface area located on a residential property is shown below.

Residential Impervious Surface Example



The impervious surface area of non-residential properties are individually measured by the City to determine the number of applicable billing units or ERUs. Non-residential properties or parcels will not be assed less than one ERU.

Non-residential Impervious Surface Example

Application of Stormwater Service Charge

Exemptions

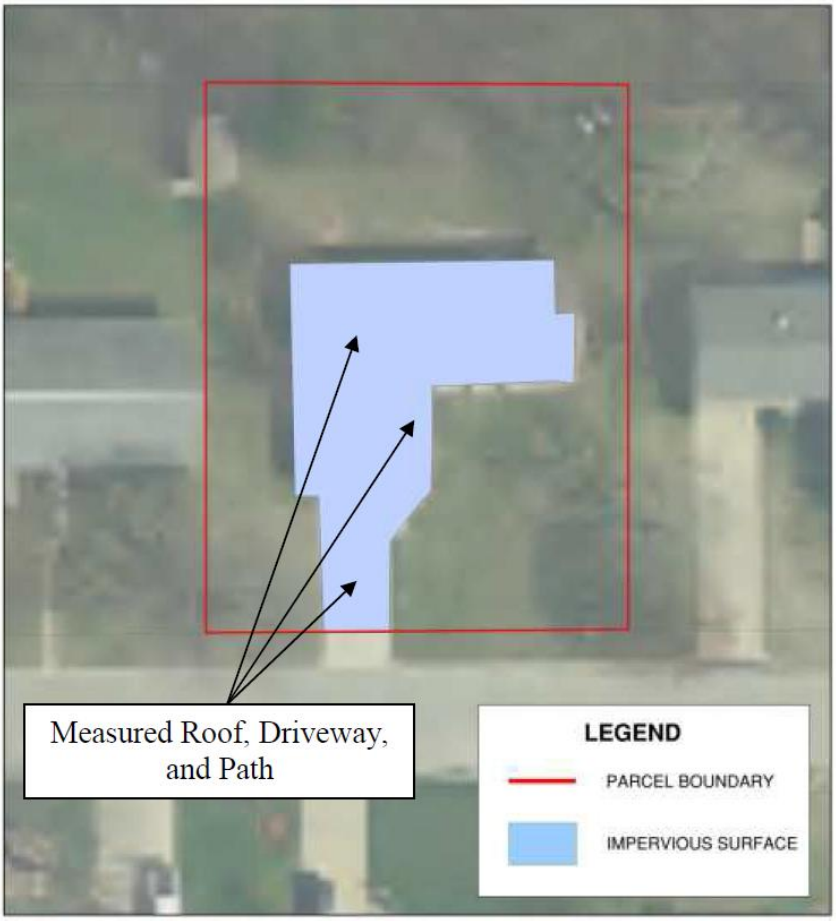
Roadways including Federal, State, County, City and those serving only residential property are considered to be part of the stormwater conveyance system and are not assessed a Stormwater Service Charge. Undeveloped property or those having no impervious surface are not assessed a Stormwater Service Charge.

Residential Property

A residential property is defined per City Ordinance 34-12 as, "Property or Parcels on which a building or mobile home is situated which building contains a group of rooms forming a single inhabitable dwelling unit with facilities which are used or are intended to be used primarily for living, sleeping, cooking and eating. This definition also includes a lot containing one individual building containing two (2) or fewer separate or contiguous single-family dwelling units."

Owners of residential properties are assessed monthly one base billing unit or ERU multiplied by the applicable monthly rate.

Example: Residential Service Charge Calculation



To calculate the monthly Stormwater Service Charge for a residential property, the following formula is used:

1 ERU x $8.00 = $8.00/month

For a newly constructed single family home on a site that was not previously developed, the residential parcels are considered responsible for the Stormwater Service Charge beginning the month following the issuance of the Certificate of Occupancy per West Lafayette City Code for structure(s) located on the property.

Non-residential Property

A non-residential property is defined per City Ordinance No. 34-12 as, "All Properties and Parcels located within the City that are not Residential Property including, but not limited to: agricultural property, apartment complexes, common area, commercial property, industrial property, institutional property, and churches."

Owners of non-residential properties are assessed monthly per the number of billing units or ERUs of impervious surface area located on the property multiplied by the applicable monthly rate.

Example: Non-Residential Service Charge Calculation

To calculate the monthly Stormwater Service Charge for a non-residential property, the following formula is used:

$$\frac{\text{30,516 Square Feet Impervious Area}}{\text{3,200 Square Feet (1 ERU)}} = 9.53 \approx 10 \times \$8.00 = \$80.00/\text{Month}$$

For a newly constructed non-residential site, that was not previously developed, non-residential parcels are considered responsible for the Stormwater Service Charge beginning the month following the issuance of the Certificate of Occupancy or use per the West Lafayette City Code for structure(s) located on the property.

Rate Reduction for Residential Property

City Ordinance No. 34-12 does stipulate "there shall be a fifty percent (50%) reduction in the monthly service charge for owners of residential property who verify they:

(A) are head of household; and
(B) are either over the age of 65 years or permanently and totally disabled as determined by the Social Security Administration; and
(C) have a total annual household income which is at or below 150% of the poverty level as determined by the United States Health and Human Services Guidelines."

B. Issuing Stormwater Service Charges

Property Ownership

The Ordinance establishes that the property owner is ultimately responsible for the assessed monthly Stormwater Service Charge. The City of West Lafayette has implemented and manages a property owner's database for the purpose of issuing Stormwater Service Charges. The property owner database is constructed by the City with data from Tippecanoe County property tax records and maintained by the City's GIS. The City of West Lafayette Utility Billing Office will carry out periodic maintenance of the database as new or updated information is provided by the County or through the City's permitting, inspection and/or certification procedures.

Billing Process

Issuing a Stormwater Service Charge

The City's Utility Billing Office issues the Stormwater Service Charge. The charges are issued from a property owner database developed and maintained for the Utility Billing Office for the purpose of issuing Stormwater Service Charges. The City establishes the process for issuance of Stormwater Service Charges.

Rounding

Per the Ordinance, only whole ERUs shall be used in determining the assignment of gross ERU's to a property. All rounding necessary to reach the appropriate whole ERU shall be done according to the mathematical convention (0-0.4 rounded down to the nearest whole ERU; 0.5-0.9 rounded up to the nearest whole ERU.) The Stormwater Service Charge will be rounded to the nearest whole cent.

Payment and Collection

As set forth by the Ordinances, the assessed Stormwater Service Charge payments are due on the payment date set on the statement.

Bills for stormwater services not paid on or before the due date are subject to a collection or deferred payment charge of 10 percent on the outstanding balance. Moving or relocation does not absolve the user from the responsibility of unpaid charges from a previous location.

Checks returned for insufficient funds are subject to reimbursement of the fee the banking institution charges the City and an administrative charge to be determined by the department. A customer submitting a bad check can be prohibited from making future Stormwater Service Charge payments by check.

Delinquent Stormwater Service Charge payments constitute a lien against the property and may be collected, along with applied penalties, recording fees and service charges, in accordance with the provisions of IC 36-9-32 and -33, as amended from time to time. Delinquent Stormwater Service Charges together with delinquent penalties cost of collection, legal fees, and other expenses of collection may be collected by any lawful remedy.

C. STORMWATER CREDITS

Purpose of Credits

Per Ordinance 34-12 the Engineering Department has developed a program of credits for non-residential property owners who have stormwater control facilities in place to manage and reduce the impact on the drainage system. The credit itself is a discount to the monthly Stormwater Service Charge. **The maximum credit or combination of credits given to any one eligible property shall be 40%.** The Stormwater Credit Manual details the policies and procedures applicable to the Stormwater Service Charge and credit program.

Stormwater Credit Manual

The West Lafayette Stormwater Credit Manual and application forms and materials can be found online at http://www.westlafayette.in.gov/

Application Forms should be sent to:

Engineering Department
Stormwater Credit Application
City of West Lafayette
609 W. Navajo Street
West Lafayette, IN 47906

For Questions Regarding the Credit Application, Contact:

Engineering Department
City of West Lafayette
609 W. Navajo Street Website:
West Lafayette, IN 47906

Phone: (765) 775-5130
Email: engineering@westlafayette.in.gov

4. ACCOUNT REVIEW AND APPEALS

Owners can request the review and/or appeal of a residential or non-residential property account. Reviews and appeals should be based on evidence or opinion that the multiple ERU assigned to the property is inaccurate. The property owner is responsible for payment of the assessed Stormwater Service Charges prior to and during review and appeal proceedings.

A property owner disputing the determination of ERU's assigned to their property may seek a review of that determination by the Engineering Department. The appeal shall be filed in writing on forms prescribed by the Board together with supporting evidence no later than 30 days after the action or decision being appealed from. The account review will be conducted and a determination will be provided to the property owner within 60 days from the date the appeal was filed.

If the property owner disputes the decision of the City or if a decision is not rendered within the 60 day period, the property owner may file a written request for a hearing before the Board no later than 90 days from the date the appeal was filed. The Board will render a final decision within 30 days thereafter.

A. STORMWATER ACCOUNT CONSIDERATIONS

Tax exempt property owners are responsible for payment of the Stormwater Service Charges if impervious surface area is present on the property in question.

Property adjoining a residential property of the same account containing a garage not being used for commercial or agricultural purposes may not be assessed a non-residential service charge.

Adjoining properties of the same account qualifying as residential and containing one common structure extending across the adjoining properties may be assessed a single ERU.

An agricultural property/parcel containing both residential and commercial sturctures and uses will be considered a non-residential property for assessment purposes.

Trails established and maintained by the City of West Lafayette on or across private non-residential property will not be assessed to the private property owner.

Impervious surface area calculations for cemeteries will not include grave markers.

Non-maintained gravel parking areas or driveways on non-residential properties are subject to measurement as impervious surface area.

Stormwater management facilities such as ponds, retention and detention basins are not assessed to the property owner as impervious surface area.

Property annexed by the City of West Lafayette meeting the definition of residential or non-residential property is subject to the Stormwater Service Charges as of the date of annexation.

For contiguous non-residential properties within the same account and having the same owner, the total ERUs for the contiguous parcels will be determined by adding the total measured impervious surface and dividing the total by 3,200 sq. ft. Rounding of the ERU shall be per the ordinance.

Property owners demolishing structures and eliminating, removing or reducing impervious surface area on either non-residential property should contact the City Engineering Department at (765) 775-5130.

5. PUBLIC INFORMATION AND CUSTOMER SERVICE

A. PUBLIC INFORMATION

The City's NPDES MS4 permit requires the City to provide outreach and education to the community regarding stormwater permit requirements and ongoing activities. Annual activities may include stormwater public information meetings, stormwater quality workshops and other stormwater awareness programs. The City will utilize various types of media to communicate information to the public regarding important program messages sand upcoming activities. Sources for program information include the City's

web site (http://westlafayette.in.gov), utility billing statements, local newspaper and periodic public service announcements on local television and radio.

Important information regarding the Stormwater Service Charge will be found on the service charge statement and/or other utility billing statements.

B. Customer Service

Customer questions pertaining to the Stormwater Service Charge should be directed as follows:

Questions about a specific statement and/or account status should be directed to the Utility Billing Department: (765) 775-5140.

General questions about stormwater program or the service charge should be directed to the Engineering Department: (765) 775-5130.

6. Application of Stormwater Funds

Per the ordinance, collected stormwater program funds are deposited in the" City of West Lafayette Stormwater Revenue Fund". Use of the funds is authorized by the Board of Works and, as required by law, by the Common Council. The board will approve the use of funds for the operation, maintenance and improvement of the City's stormwater system, many of which are critical MS4 permit compliance activities. Stormwater revenue funds will not revert to any other City utility or to the general fund.

7. Program Abbreviations and Definitions

A. Abbreviations

BMP Best Management Practice

COE United States Army Corps of Engineers

CWA Clean Water Act

EPA Environmental Protection Agency

ERU Equivalent Residential Unit

GIS Geographical Information System

IDEM Indiana Department of Environmental Management

MS4	Municipal Separate Storm Sewer System
NRCS	USDA-Natural Resources Conservation Service
NPDES	National Pollutant Discharge Elimination System
POTW	Publicly Owned Treatment Works
SWCD	Soil and Water Conservation District
SWPP	Stormwater Pollution Prevention Plan
USDA	United States Department of Agriculture

B. DEFINITIONS

Best Management Practices. Design, construction, and maintenance practices and criteria for stormwater facilities that minimize the impact of stormwater runoff rates and volumes, prevent erosion, and capture pollutants.

Buffer Strip. An existing, variable width strip of vegetated land intended to protect water quality and habitat.

Catch Basin. A chamber usually built at the curb line of a street for the admission of surface water to a storm drain or subdrain, having at its base a sediment sump designed to retain grit and detritus below the point of overflow.

Channel. A portion of a natural or artificial watercourse which periodically or continuously contains moving water, or which forms a connecting link between two bodies of water. It has a defined bed and banks which serve to confine the water.

Constructed Wetland. A manmade shallow pool that creates growing conditions suitable for wetland vegetation and is designed to maximize pollutant removable.

Construction Activity. Land disturbance activities, and land disturbing activities associated with the construction of infrastructure and structures. This term does not include routine ditch or road maintenance or minor landscaping projects,

Contour. An imaginary line on the surface of the earth connecting points of the same elevation.

Contractor or Subcontractor. An individual or company hired by the project site or individual lot owner, their agent, or the individual lot operator to perform services on the project site,

Conveyance. Any structural method for transferring stormwater between at least two points. The term includes piping, ditches, swales, curbs, gutters, catch basins, channels, storm drains, and roadways.

Cross Section. A graph or plot of ground elevation across a stream valley or a portion of it, usually along a line perpendicular to the stream or direction of flow.

Culvert. A closed conduit used for the conveyance of surface drainage water under a roadway, railroad, canal or other impediment.

Dechlorinated Swimming Pool Discharge. Chlorinated water that has either sat idle for seven days following chlorination prior to discharge to the MS4 conveyance, or, by analysis, does not contain detectable concentrations (less than five-hundredths (0.05) milligram per liter) of chlorinated residual.

Detention. Managing stormwater runoff by temporary holding and controlled release.

Detention Basin. A facility constructed or modified to restrict the flow of stormwater to a prescribed maximum rate, and to detain concurrently the excess waters that accumulate behind the outlet.

Detention Storage. The temporary detaining of storage of stormwater in storage facilities, on rooftops, in streets, parking lots, school yards, parks, open spaces or other areas under predetermined and controlled conditions, with the rate of release regulated by appropriately installed devices.

Detritus. Dead or decaying organic matter; generally contributed to stormwater as fallen leaves and sticks or as dead aquatic organisms.

Developer. Any person financially responsible for construction activity, or an owner of property who sells or leases, or offer for sale or lease, any lots in a subdivision.

Development. Any improvement or change to a property brought about by human activity, including but not limited to: buildings and other structures, mining, dredging, grading, paving, excavation or drilling operations. The term does not include public roads.

Discharge. Usually the rate of water flow. A volume of fluid passing a point per unit time commonly expressed as cubic feet per second, cubic meters per second, gallons per minute, or millions of gallons per day.

Disposal. The discharge, deposit, injection, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that the solid waste or hazardous waste, or any constituent of the waste, may enter the environment, be emitted into the air, or be discharged into the waters, including ground waters.

Ditch. A man-made, open drainageway in or into which excess water or groundwater drained from land, stormwater runoff, or floodwaters flow either continuously or intermittently.

Drain. A buried slotted or perforated pipe or other conduit (subsurface drain) or a ditch (open drain) for carrying off surplus groundwater or surface water.

Drainage. The removal of excess surface water or groundwater from land by means of ditches or subsurface drains. Also see natural drainage.

Drainage Area. The area draining into a stream at a given point. It may be of different sizes for surface runoff, subsurface flow and base flow, but generally the surface runoff area is considered as the drainage area.

Drainageway. A natural or artificial stream, closed conduit, or depression that carries surface water. This term is used as a neutral term applying to all types of drains and watercourse, whether man-made or natural.

Duration. The time period of a rainfall event.

Dwelling Unit. A building or structure, or portion thereof, that contains living facilities including provisions for sleeping, eating, cooking and sanitation, as required by local, state, and federal code, for not more than one (1) family or congregate resident for sixteen (16) or fewer persons.

Environment. The sum total of all the external conditions that may act upon a living organism or community to influence its development or existence.

Equivalent Residential Unit. One (1) equivalent residential unit shall equal 3,200 square feet of impervious surface area, which shall be considered the average impervious surface area for a Residential Property.

Erosion. The wearing away of the land surface by water, wind, ice, gravity, or other geological agents. The following terms are used to describe different types of water eroision:

Accelerated Erosion – Erosion much more rapid than normal or geologic erosion, primarily as a result of the activities of man;

Channel Erosion – An erosion process whereby the volume and veloCity of flow wears away the bed and/or banks of a well-defined channel;

Gully Erosion – An erosion process whereby runoff water accumulates in narrow channels and, over relatively short periods, removes the soil to considerable depths, ranging from one to two ft. to as much as seventy-five (75) to one hundred (100) ft;

Rill Erosion – An erosion process in which numerous small channels only several inches deep are formed; occurs mainly on recently disturbed and exposed soils (see rill);

Splash Erosion – The spattering of small soil particles caused by the impact of raindrops on wet soils; the loosened and spattered particles may or may not be subsequently removed by surface runoff;

Sheet Erosion – The gradual removal of a fairly uniform layer of soil from the land surface by runoff water.

Erosion and Sediment Control. A practice, or a combination of practices, to minimize sedimentation by first reducing or eliminating erosion at the source and then as necessary, trapping sediment to prevent it from being discharge from or within a project site.

Filter Strip. Usually a long, relatively narrow area (usually, twenty (20) to seventy-five (75) feet wide) or undisturbed or planted vegetation used near disturbed or impervious surfaces to filter stomwater pollutants for the protection of watercourses, reservoirs, or adjacent properties.

Flood (or Flood Waters). A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow, the unusual and rapid accumulation, or the runoff of surface waters from any source.

Floodplain. The channel proper and the areas adjoining the channel which have been or hereafter may be covered by the regulatory or one hundred (100) year flood. Any normally dry land area that is susceptible to being inundated by water from any natural source. The floodplain includes both the floodway and the floodway fringe districts.

Floodway. The channel of a river or stream and those portions of the floodplains adjoining the channel which are reasonably required to efficiently carry and discharge the peak flow of regulatory flood of any river or stream.

Floodway Fringe. That portion of the flood plain lying outside the floodway, which is inundated by the regulatory flood.

Footing Drain. A drain pipe installed around the exterior of a basement wall foundation to relieve water pressure cause by high groundwater elevation.

Garbage. All putrescible animal solid, vegetable solid, and semisolid wastes resulting from the processing, handling, preparation, cooking, serving, or consumption of food or food materials.

Gasoline Outlet. An operating gasoline or diesel fueling facility whose primary function is the resale of fuels. The term applies to facilities that create five thousand (5,000) or more square feet impervious surfaces, or generages an average daily traffic count of one hundred (100) vehicles per one thousand (1,000) square feet of land area.

Grade. (1) The inclination or slope of a channel, canal, conduit, etc., or natural ground surface usually expressed in terms of the percentage the vertical rise (or fall) bears to the corresponding horizontal distance; (2) The finished surface of a surface of a canal bed, roadbed, top of embankment, or bottom of excavation; any surface prepared to a designed elevation for the support of construction, such as paving or the laying of a conduit; (3) To finish the surface of a canal bed, roadbed, top of embankment, or bottom of excavation, or other land area to a smooth, even condition.

Grading. The cutting and filling of the land surface to a desired slope or elevation.

Grass. A member of the botanical family Graminae, characterized by blade-like leaves that originate as a sheath wrapped around the stem.

Groundwater. Accumulation of underground water, natural or artificial. The term does not include manmade underground storage or conveyance structures.

Habitat. The environment in which the life needs of a plant or animal are supplied.

Highly Erodible Land (HEL). Land that has an erodibility index of eight or more. Within the Tippecanoe MS4 area, the following soils are listed as high erodible or potentially highly erodible.

- Coloma (CrC)
- Crosby (CwB2)
- Desker (DmC2, DoC2, DpD2)
- Kalamazoo (KaB2, KbB2, KcB2, KcC2
- Kosciusko (KoD2, KpC3)
- Lauramie (LnB2)
- Longlois (LvB2, LwB2)
- Miami (MsC2, MsD2, MtC3, MtD3)
- Octagon (OmB2, OmC2, OpC3)
- Rainsville (RaB2)
- Richardville (RaB2)
- Rodman (RsF)
- Spinks (StC)
- Strawn (SyF)
- Toronto (TnB2)

Hydrologic Unit Code. A numeric United States Geologic Survey code that corresponds to a watershed area. Each area also has a text description associated with the numeric code.

Hydrology. The science of the behavior of water in the atmosphere, on the surface of the earth, and underground. A typical hydrologic study is undertaken to compute flow rates associated with specific flood events.

Illicit Discharge. Any discharge, excluding water discharged for firefighting and fire protection, to a conveyance that is not composed entirely of stormwater except naturally occurring floatables, such as leaves or tree limbs.

Impaired Waters. Waters that do not or are not expected to meet applicable water quality standards, as included on IDEM's CWA Section 303(d) List of Impaired Waters. Within the Tippecanoe MS4 area, the following waters are considered impaired:

- Elliot Ditch;
- Wabash River;
- Wea Creek;
- Wildcat Creek;
- South Fork Wildcat Creek.

Impervious Surface. A surface, such as pavement, rooftops, compacted gravels and other structures, which prevents the infiltration of stormwater into the soil.

Individual Building Lot. A single parcel of land within a multi-parcel development.

Individual Lot Operator. A contractor or subcontractor working on an individual lot.

Individual Lot Owner. A person who has financial control of construction activities for an individual lot.

Infiltration. Passage or movement of water into the soil. Infiltration practives include any structural BMP designed to facilitate the percolation of run-off through the soil to groundwater. Examples include infiltration basins or trenches, dry wells, and porous pavement.

Inlet. An opening into a storm drain system for the entrance of surface stormwater runoff, more completely described as a storm drain inlet.

Land Surveyor. A person licensed under the laws of the state of Indiana to practice land surveying.

Larger Common Plan of Development or Sale. A plan, undertaken by a single project site owner or a group of project site owners acting in concert, to offer lots for sale or lease, where such land is contiguous, or is known, designated, purchased or advertised as a common unit or by a common name, such land shall be presumed as being offered for sale or lease as part of a large common plan. The term also includes phased or other construction activity by a single entity for its own use.

Measureable Storm Event. A precipitation event that results in a total measured precipitation accumulation equal to, or greater than, one-half (0.5) inch of rainfall.

Mulch. A natural or artificial layer of plant residue or other materials covering the land surface which conserves moisture, hold soil in place, aids in establishing plant cover, and minimizes temperature fluctuations.

Municipal Separate Storm Sewers. An MS4 meets all the following criteria: (1) is a conveyance or system of conveyances owned by the state, country, City, town, or other public entity; (2) discharges to waters of the U.S.; (3) is designed or used for collecting or conveying stormwater; (4) is not a combined sewer; and (5) is not part of a publicly owned treatment works (POTW).

National Pollutant Discharge Elimination System. A permit developed by the U.S. EPA through the Clean Water Act. In Indiana, the permitting process has been delegated to IDEM. This permit covers aspects of municipal stormwater quality.

Natural Discharge. The flow patterns of stormwater run-off over the land in its pre-development state.

Non-Residential Property. A parcel or property that is not a Residential Property.

Nutrient(s). (1) A substance necessary for the growth and reproduction of organisms; (2) In water, those substances (chiefly nitrates and phosphates) that promote growth of algae and bacteria.

Open Drain. A natural watercourse or constructed open channel that conveys drainage water.

Open Space. Any land area devoid of any disturbed or impervious surfaces created by industrial, commercial, residential, agricultural, or other manmade activities.

Outfall. The point, location, or structure where a pipe or open drain discharges to a receiving body of water.

Outlet. The point of water disposal from a stream, river, lake, tidewater, or artificial drain.

Outstanding Waters. Waters known for their scenic beauty and recreational opportunities. Within the Tippecanoe MS4 area, these include:

- The Wabash River Heritage Corridor;
- Wildcat Creek;
- The Middle Fork of Wildcat Creek;
- The South Fork of Wildcat.

Permanent Stabilization. The establishment, at a uniform density of seventy (70) percent across the disturbed area, of vegetative cover or permanent non-erosive material that will ensure the resistance of the soil to erosion, sliding, or other movement.

Pervious. Allowing infiltration of water.

Point Source. Any discernible, confied, and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, or container from which pollutants are or maybe discharged (P.L. 92-500, Section 502 [14]).

Professional Engineer. A person licensed under the laws of the state of Indiana to practice professional engineering.

Project Site. The entire area on which construction activity is to be performed.

Project Site Owner. The person required to submit a stormwater permit application associated with land disturbing activities, and required to comply with the terms of this code, including a developer or a person who has financial and operational control of construction activities, and project plans and specifications, including the ability to make modifications to those plans and specifications.

Recreational Waters. Most recreational activities within the MS4 area revolve around five waterways:

- Burnett Creek;

- Wabash River;
- North Fork Wildcat Creek;
- South Fork Wildcat Creek;
- Wildcat Creek; mainstem.

Redevelopment. Alterations of a property that change a site or building in such a way that there is disturbances of one acre or more of land. The term does not include such activities as exterior remoldeling.

Refueling Area. An operating gasoline or diesel fueling area whose primary function is to provide fuel to equipment or vehicles.

Regulatory Flood. The discharge or elevation associated with the one (100) year flood as calculated by a method and procedure which is acceptable to and approved by the Indiana Department of Natural Resources and the Federal Emergency Management Agency. The "regulatory flood" is also known as the "base flood".

Regulatory Floodway. See floodway.

Release Rate. The amount of stormwater released from a stormwater control facility per unit of time.

Reservoir. A natural or artificially created pond, lake or other space used for storage, regulation or control of water. May be either permanent or temporary. The term is also used in the hydrologic modeling of storage facilities.

Residential Property. A parcel or property containing a single building or structure intended for sleeping purposes and containing not more than two (2) Dwelling Units.

Retention. The storage of stormwater to prevent it from leaving the development site. May be temporary or permanent.

Retention Basin. A type of storage practice, that has no positive outlet, used to retain stormwater run-off for an indefinite amount of time. Runoff from this type of basin is removed only by infiltration through a porous bottom or by evaporation.

Return Period. The average interval of time within which a given rainfall event will be equaled or exceeded once. A flood having a return period of one hundred (100) years has a one percent probability of being equaled or exceeded in any one year.

Riparian Zone. Areas on and adjacent to the banks of a stream, river, or pond, through which surface and subsurface hydrology connect waterbodies with their adjacent uplands.

Riparian Habitat. A land area adjacent to a waterbody that supports animal and plant life associated with that waterbody.

Runoff. That portion of precipitation that flows from a drainage area on the land surface in open channels, or in stormwater conveyance systems.

Runoff Coefficient. A decimal fraction relating the amount of rain which appears as runoff and reaches the storm drain system to the total amount of rain falling. A coefficient of 0.5 implies that fifty (50) percent of the rain falling on a given surface.

Sediment. Solid material (both mineral and organic) that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface.

Sedimentation. The process that deposits soils, debris and other unconsolidated materials either on the ground surfaces or in bodies of water or watercourses.

Site. The entire area included in the legal description of the land on which land disturbing activity is to be performed.

Slope. Degree of deviation of a surface from the horizontal, measured as a numerical ratio or percent. Expressed as a ratio, the first number is commonly the horizontal distance (run) and the second is the vertical distance (rise) – e.g. 2:1. However, the preferred method of designation of the slopes is to clearly identify the horizontal (H) and vertical (V) components (length (L) and width (W) components for horizontal angles). Also note that according to international standards (metric), the slopes are presented as the vertical or width component shown on the numerator – e.g., 1V:2H. Slope expressions in this code follow the common presentation of slopes – e.g., 1V:2H. Slope expressions in this code follow the common presentation of slopes – e.g., 2:1 with the metric presentation shown in parenthesis – e.g., (1V:2H). Slopes can also be expressed in "percents". Slopes given in percents are always expressed as (100*V/H) – e.g., a 2:1 (1V:2H) slope is a fifty (50) percent slope.

Soil. The unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

Soil and Water Conservation District. A public organization created under state law as a special-purpose district to

Solid Waste. Any garbage, refuse, debris, or other discarded material.

Spill. The unexpected, unintended, abnormal, or unapproved dumping, leakage, drainage, seepage, discharge, or other loss of petroleum, hazardous substances, extremely hazardous substances, or objectionable substances. The term does not include releases to impervious surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil.

Storm Duration. The length of time that water may be stored in any stormwater control facility, computed from the time water first begins to be stored.

Storm Event. An estimate of the expected amount of precipitation within a given period of time. For example, a ten (10) yr. frequency, twenty-four (24) hr. duration storm even is a storm that has a ten (10) percent probability of occurring in any one year. Precipitation is measured over a twenty-four hr. period.

Storm Sewer. A closed conduit for conveying collected stormwater, while excluding sewage and industrial wastes. Also called a storm drain.

Stormwater. Water resulting from rain, melting or melted snow, hail, or sleet.

Stormwater Drainage System. All natural or man-made, used for conducting stormwater to, through or from a drainage area to any of the following: conduits and appurtenant features, canals, channels, ditches, storage facilities, swales, streams, culverts, streets and pumping stations.

Stormwater Pollution Prevention Plan. A plan developed to minimize the impact of stormwater pollutants resulting from construction activities.

Stormwater Quality Management Plan. A comprehensive written document that addresses stormwater runoff quality.

Stormwater Quality Measure. A practice, or a combination of practices, to control or minimize pollutants associated with stormwater runoff.

Stormwater Runoff. The water derived from rains falling within a tributary basin flowing over the surface of the ground or collected in channels or conduits.

Stormwater Service Charge. The charge imposed by Section 8.08.800.

Strip Development. A multi-lot project where building lots front on an existing road.

Subdivision. Any land that is divided or proposed to be divided into lots, whether contiguous or subject to zoning requirements, for the purpose of sale or lease as part of a larger common plan of development or sale.

Subsurface Drain. A pervious backfilled trench, usually containing stone and perforated pipe, for intercepting groundwater or seepage.

Surface Runoff. Precipitation that flows onto the surfaces of roofs, streets, the ground, etc., and is not absorbed or retained by that surface but collects and runs off.

Swale. An elongated depression in the land surface that is at least seasonally wet, is usually heavily vegetated, and is normally without flowing water. Swales conduct stormwater into primary drainage channels and may provide some groundwater recharge.

Temporary Stabilization. The covering of soil to ensure its resistance to erosion, sliding, or other movement. The term includes vegetative cover, anchored mulch, or other non-erosive material applied at a uniform density of seventy (70) percent across the disturbed area.

Topographic Map. Graphical portrayal of the topographic features of a land area, showing both the horizontal distances between the features and their elevations above a given datum.

Topography. The representation of a portion of the earth's surface showing natural and man-made features of a given locality such as rivers, streams, ditches, lakes roads, buildings and most importantly, variations in ground elevations for the terrain of the area.

Urbanization. The development, change or improvement of any parcel of land consisting of one or more lots for residential, commercial, industrial, institutional, recreation or public utility purposes.

Water Quality. A term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

Water Resources. The supply of groundwater and surface water in a given area.

Waterbody. Any accumulation of water, surface, or underground, natural or artificial excluding water features designed and designated as water pollution control facilities.

Watercourse. Any river, stream, creek, brook, branch, natural or man-made drainageway in or into which stormwater runoff or floodwaters flow either continuously or intermittently.

Watershed. The region drained by or contributing water to a specific point that could be along a stream, lake, or other stormwater facilities. Watershed are often broken down into subareas for the purpose of hydrologic modeling.

Watershed Area. All land and water within the confines of a drainage divide. See also watershed.

Wetlands. Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.